

225/273  
Patent

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

**Dr. Yajun Guo**

Serial No. 08/872,527

Filed: June 11, 1997

For: **CELLULAR VACCINES AND  
IMMUNOTHERAPEUTICS AND  
METHODS FOR THEIR  
PREPARATION**

Group Art Unit 1816

Examiner: T. Cunningham, Ph.D., J.D.

February 9, 1998

RESPONSE TO RESTRICTION REQUIREMENT

Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

In response to a Restriction Requirement issued January 8, 1998, Applicant respectfully elects the claims of Group I, i.e., claims 1-22 and 33-48 for examination and cancels claims 23-32 without prejudice to further prosecution thereof.

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CERTIFICATE OF MAILING

I hereby certify that this paper (along with any referred to as being attached or enclosed) is being deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231.

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February 9, 1998  
date of deposit

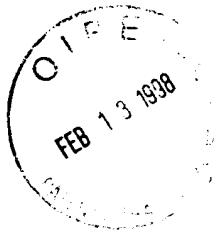
Kelly Glass  
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The Examiner also required applicant to elect (1) a particular structurally-defined type of bridge molecule, and (2) one species of method involving the administration of a composition containing the above elected species of bridge molecule and further specify the other ingredients in the composition as well as specific method steps.

In that regard, Applicant elects bispecific monoclonal antibodies as a species of bridge molecule for examination. This species is encompassed by claims 1-22 and 33-48.

Applicant further elects the method exemplified in Example 6.6 and Figures 5 and 6 for examination. In this example, hepa 1-6 tumor cells were treated with cytokines (i.e., IFN- $\gamma$  and TNF- $\alpha$ ) and coated with CD28:gp55 bispecific monoclonal antibodies. Mice bearing hepatoma tumor were treated with controls or  $2 \times 10^6$  cytokine treated hepa 1-6 tumor cells armed with CD28:gp55 Bi-MAb. Figure 5 shows that mice treated with the tumor vaccine of this invention survived for more than 100 days while mice in the control groups died within about 40 days. Figure 6 shows that tumors in mice treated with the tumor vaccine of this invention regressed to undetectable size within about 40 days while tumors in mice in the control groups more than doubled in size within the same time period.

An abstract summarizing data from a human clinical trial using tumor vaccines of this invention is attached as Appendix A for the Examiner's reference. This abstract has been accepted for presentation at the Annual Meeting of the American Association for Cancer Research, March 28-April 1, 1998, New Orleans, LA.



SP 1816  
1644

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TRANSMITTAL LETTER

Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

Transmitted herewith for filing in the above-referenced application are the following:

- Response to Restriction Requirement;

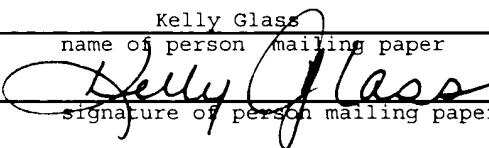
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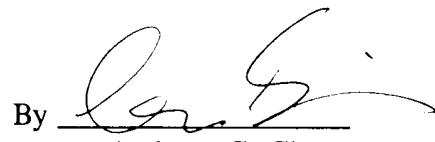
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- Appendix A; and
- Return postcard.

No fees are believed due with this filing but if additional fees are required,  
please charge our Deposit Account No. 12-2475 for the appropriate amount.

Respectfully submitted,

LYON & LYON LLP

By 

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